recommended that food security, sustainable agriculture and conservation of natural resources must receive priority in all the research programmes. Each institute must evolve a strategic plan for both long term and short term goals. One of the major thrust area in the VIII Five Year Plan document of the ICAR is diversification of agriculture to horticulture, fisheries, animal products and post harvest processing. A number of national research centres have been established during the VII and VIII plan to give a thrust in horticultural crops such as Banana, Grapes, Spices, Cashew, Orchids, Mushroom, Citrus, Oil-palm, Onion and Garlic, Medicinal and aromatic Plants and Arid Horticulture.

(d) The rules of the ICAR Society have been recently amended to constitute a Research Advisory Committee and a Staff Research Council for each of the ICAR Institute to augment and reorient its research efforts in new directions. The Rules and By-laws of the ICAR Society are flexible enough to reorient farm research towards agri-business and frontier areas of technologies.

Plant Pest Resistance

2753. SHRI B. K. HARIPRASAD: Will the Minister of AGRICULTURE be pleased to - state :

(a) whether there is increasing evidence of plant pest resistance to chemical pesticides over the years and if so, list and details of plant pests that have turned resistant to pesticides singly or multi-resistant;

(b) whether the application and total use of pesticides is increasing as a result of above and if so, details thereof;

(c) whether it is a fact that human vectors of parasites like malaria etc. have also turned resistant singly and multi-resistant and jf so, list of such vectors in the country indicating whether use of pesticides for control has increased as a result; and

(d) whether Government have framed and finalised a National Pesticide Policy as has been urged by many NGOs and notably by Society of Citizen Concerns in its press writings over the years ?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI ARVIND NET AM) : (a) Sir, development of resistance to chemical pesticides by plant pests is a biological phenomenon largely depends upon the population pressure of the insects, type of pesticide used and other environmental factors. Details, of plant pests which have been reported to have developed resistance to pesticides are as follows:

Plant pest single/multi-resistance to chemical pesticides

Plant pest	Resistance to chemical pesticides
A. SINGLE RESISTANCE	
DIAMONDBACK-MOTH	Malathion
MUSTARD APHID	Dimethoate
B. MULTIPLE RISISTANCE	
AMERICAN BOLL-WORM	ENDOSULFAN MONOCRO-f ** TOPHOS CYPER-METHRIN FENVALERATE

(b) No, Sir. The Government is promoting the adoption of Integrated Pest Management which inter alia comprise* cultural, mechanical, biological and need-based use of pesticides of plant origin.

(c) Yes, Sir, there are indications of development of resistance in vectors of human diseases. Details are as below :

List of human dvease vectors Resistant

Name of vector	Resistant to	
	DDT (Single)	Malathion (Triple)
Anopheline Culicifacies		
Anopheline *Stephensi*	Single	Triple
Anopheline annularis]	Single	—
Culex quinquefa-ciatus	Single	Triple
Culex vishnui group	Single	—

However, there is no increase in use ol insecticides for vector control. The consumption of pesticide has decreased from 22,400 MT during 90-91 to 16.600 MT during 93-94.

(d) The import, manufacture and the use of pesticides in the country is governed under the various provisions of the Insecticides Act, 1968 and the Rules framed thereunder. Integrated Pest Management which inter-alia advocates preferential use of non-chemical pest control methods has been adopted as the cardinal principle of plant protection.